

**EIGHT NEW SPECIES OF TROMBICULIDAE (ACARINA)
FROM QUEENSLAND**

By H. WOMERSLEY *

[Read 9 July 1953]

SUMMARY

Eight new larval species of Trombiculid Mites (Trombiculidae, Acarina) are described from the Mackay and Brisbane areas of Queensland.

The eight species of Trombiculidae described in the present paper were all collected in the Mackay and Brisbane areas of Queensland by Dr. E. H. Derrick and his colleagues during a survey of those areas.

Most of them were collected by the card method, the others being from animal hosts.

The types and some paratypes are in the South Australian Museum. Other paratypes in the Queensland Institute for Medical Research, Brisbane.

Trombicula derricki sp. n.

Fig. 1 A-G

Description of Larvae—Length (unengorged) 208μ , width 169μ . Scutum as figured, almost as deep as wide with deep evenly rounded posterior margin; anterior margin only lightly sinuous; SB a little in front of line of PL; scutal setae fairly long, tapering and ciliated, AM the shortest, PL the longest; sensillae filamentous with ciliations on distal half; surface with only moderately numerous punctae. Eyes 2 + 2, on ocular shields, posterior the smaller. Palpi moderately stout, setae on femur, genu and tibia all ciliated or branched. tibial claw trifurcate. Chelicerae simple with only the apical tricuspid cap. Dorsal setae 34 arranged 2.6.8.8.6.4. to 45μ long, except the humerals which are 50μ long. Ventrally, a pair of branched setae on maxillae, one on each coxa, a pair between coxae I and between coxae III, and thereafter 8.4/6.6.4 to 34μ long. Legs 7-segmented, I 260μ long, II 234μ , III 273μ ; specialised setae on leg I, 2 genualae, 1 microgenuala, 2 tibialae, 1 microtibiala, on tarsi 1 sensory rod, 1 microspur, 1 terminala; on leg II 1 genuala, 2 tibialae, on tarsi 1 sensory rod, 1 microspur; and on leg III 1 mastitibiala; 2 mastitarsalae.

The Standard Data derived from 17 species collected on cards are:—

	Mean	Standard Deviation	Theoretical Range	Observed Range	Coeff. of Variation
AW	62.4 ± 0.45	1.86 ± 0.32	56.8—68.0	58.5—64.4	2.9
PW	78.1 ± 0.49	2.01 ± 0.34	72.1—84.1	72.8—81.2	2.6
SB	24.5 ± 0.21	0.87 ± 0.15	21.9—27.1	22.4—25.2	3.6
ASB	26.8 ± 0.35	1.42 ± 0.24	22.5—31.1	25.2—28.0	5.3
PSB	27.6 ± 0.23	0.93 ± 0.16	24.8—30.4	25.2—28.0	2.3
SD	54.5 ± 0.49	2.00 ± 0.34	48.5—60.5	50.4—56.0	3.7
A-P	28.0	No variation recorded			
AM	33.4 ± 0.30	1.20 ± 0.21	29.8—37.0	30.8—36.4	3.3
AL	39.5 ± 0.32	1.32 ± 0.22	35.6—43.4	36.4—42.0	3.3
PL	45.3 ± 0.35	1.43 ± 0.25	41.0—49.6	42.0—47.6	3.2
Sens	62.5 ± 0.32	1.24 ± 0.23	58.6—66.0	61.6—64.4	2.0

Loc. and Host—Seventeen specimens collected on cards. Mt. Jukes, Queensland, 6 September 1951 (E. H. Derrick).

* South Australian Museum.

Remarks—This species is closely related to *novae-hollandiae* Hirst and its allies, in having a long nude outstanding mastitibiala and two such mastitarsalae on leg III. In the shape of the scutum it is similar to *novae-hollandiae*, but the posterior margin is evenly round whereas in *novae-hollandiae* it is slightly but perceptibly flattened medially.

From all the *novae-hollandiae* group, however, *derricki* has a long outstanding but ciliated seta on telofemur III.

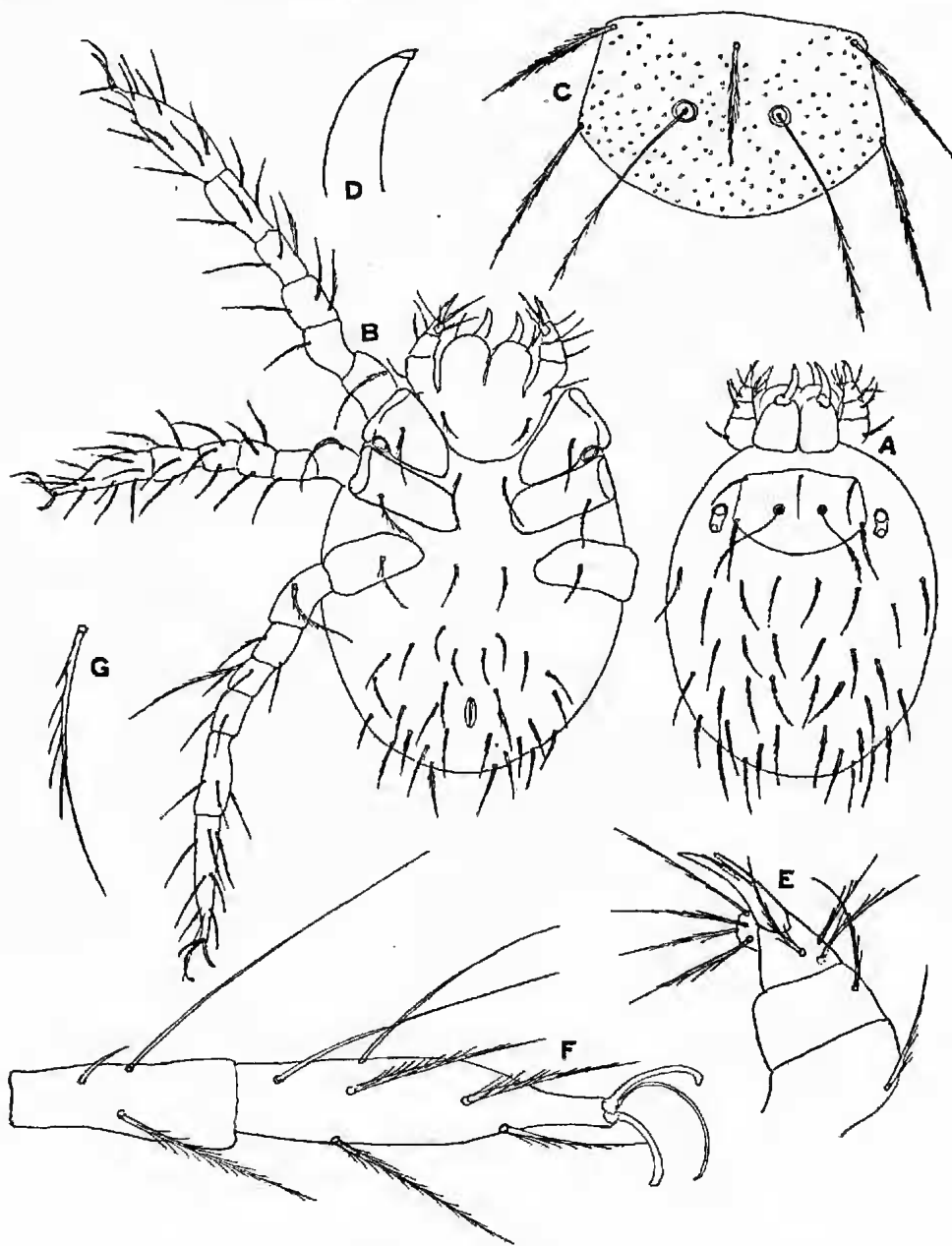


Fig. 1 *Trombicula derricki* sp. n.

A, dorsal view; B, ventral view; C, scutum (x 500); D, tip of chelicera; E, palp; F, tibia and tarsus of leg III; G, maxillary seta.

The species is named in honour of the finder, and the holotype and paratypes are in the South Australian Museum.

This and the following two species will come into caption 23 of Womersley 1952 on p. 36 forming a group with *novae-hollandiae*, this portion of the key being emended as follows:—

23. Leg III with 2 mastitibialae and 1 mastitarsala - - - - - a
- a. With a long outstanding ciliated seta on telofemur III. Setae on palpal femur, genu and tibia all ciliated. Posterior scutal margin evenly rounded. Scutal punctae moderate in number. Sensillae ciliated distally with SB slightly in front of PL. DS 34, arranged 2.6.8.8.6.4. to 45μ long.
AW 62.4 ± 5.6 , PW 78.1 ± 6.0 , SB 24.5 ± 2.6 , ASB 26.8 ± 4.2 ,
PSB 27.6 ± 2.8 , SD 54.5 ± 6.0 , A-P 28.0 , AM 33.4 ± 5.6 ,
AL 39.5 ± 3.9 , PL 45.3 ± 4.3 , Sens. 62.3 ± 3.7 .

Trombicula derricki sp. n.

- Without any such long outstanding seta on telofemur III. - - - - - b
- b. Posterior scutal margin not so deep behind PL and medially very lightly concave. Setae on palpal femur, genu and tibia sparsely branched. Scutal punctae fairly numerous. Sensillae nude or with very indistinct barbs basally. SB about in line with PL. DS 30, arranged 2.6.6.6.4.4.2. to 45μ .
AW 63.8 ± 5.3 , PW 86.45 ± 7.65 , SB 29.7 ± 4.2 , ASB 32.2 ± 5.1 ,
PSB 17.5 ± 3.6 , SD 49.1 ± 4.0 , A-P 31.1 ± 2.7 , AM 45.7 ± 6.3 ,
AL 42.35 ± 3.95 , PL 49.5 ± 3.9 , Sens. to 89.6 .

Trombicula antechinus sp. n.

- Posterior scutal margin deeper behind PL and not shaped as above - - - - - c
- c. Scutal posterior margin evenly rounded and with sparser punctae. Seta on palpal femur 2-branched and on genu 1-branched, on tibia dorsal 2-branched, lateral 1-branched, and ventral 3-4 branched. Sensillae nude or with indistinct barbs basally. SB slightly behind PL. DS 30, arranged 2.6.6.6.4.4.2. to 45μ .
AW 63.3 ± 5.2 , PW 80.4 ± 6.3 , SB 27.2 ± 3.6 , ASB 32.4 ± 4.2 ,
PSB 21.2 ± 4.2 , SD 53.55 ± 5.05 ; A-P 24.8 ± 3.5 , AM 36.0 ± 4.3 ,
AL 38.4 ± 6.7 , PL 45.0 ± 6.3 , Sens. to 89.6 .

Trombicula thylogale sp. n.

Scutal posterior margin deep behind PL and rather flattened medially. Scutal punctae numerous. Setae on palpal femur, genu and tibia all ciliated. Sensillae barbed or shortly ciliated distally and SB slightly behind PL. DS 32, arranged 2.6.6.6.6.4.2. to 80μ .

Trombicula novae-hollandiae Hirst

(Standard Data as in 1952 key.)

Trombicula antechinus sp. n.

Fig. 2 A-F

Description of Larvae—Length of idiosoma (engorged) 377μ , width 286μ . Scutum as figured, ASB about twice the length of PSB, posterior margin rather shallow and lightly concave medially; anterior margin only lightly sinuous; SB a little in front of PL; scutal setae fairly long, tapering and ciliated; AL slightly shorter than AM, PL the longest; sensillae nude or indistinctly barbed basally; punctae fairly numerous. Eyes 2 + 2, on ocular shields, posterior the smaller. Palpi moderately stout, setae on femur, genu and tibia all branched or ciliated, tibial claw trifurcate. Chelicerae simple with only the tricuspid cap. Dorsal setae 30, arranged 2.6.6.6.4.4.2., to 45μ long, except the humerals which are 50μ long. Ventrally, a pair of branched setae on maxillae, one on each coxa, a pair between coxae I and between coxae III, and thereafter 4.4.4/2.4.6.4, to 42μ long. Legs 7-segmented, I 234μ long, II 208μ long, III 247μ long; specialised setae on leg I, 1 genuala, 1 microgenuala, 2 tibialae, 1 microtibiala, on tarsi 1 sensory rod, 1 microspur, 1 terminala; on leg II, 1 genuala, 2 tibialae, on tarsi 1 sensory rod, 1 microspur; and on leg III, 1 genuala, 1 tibiala, 1 mastitibiala, 2 mastitarsalae.

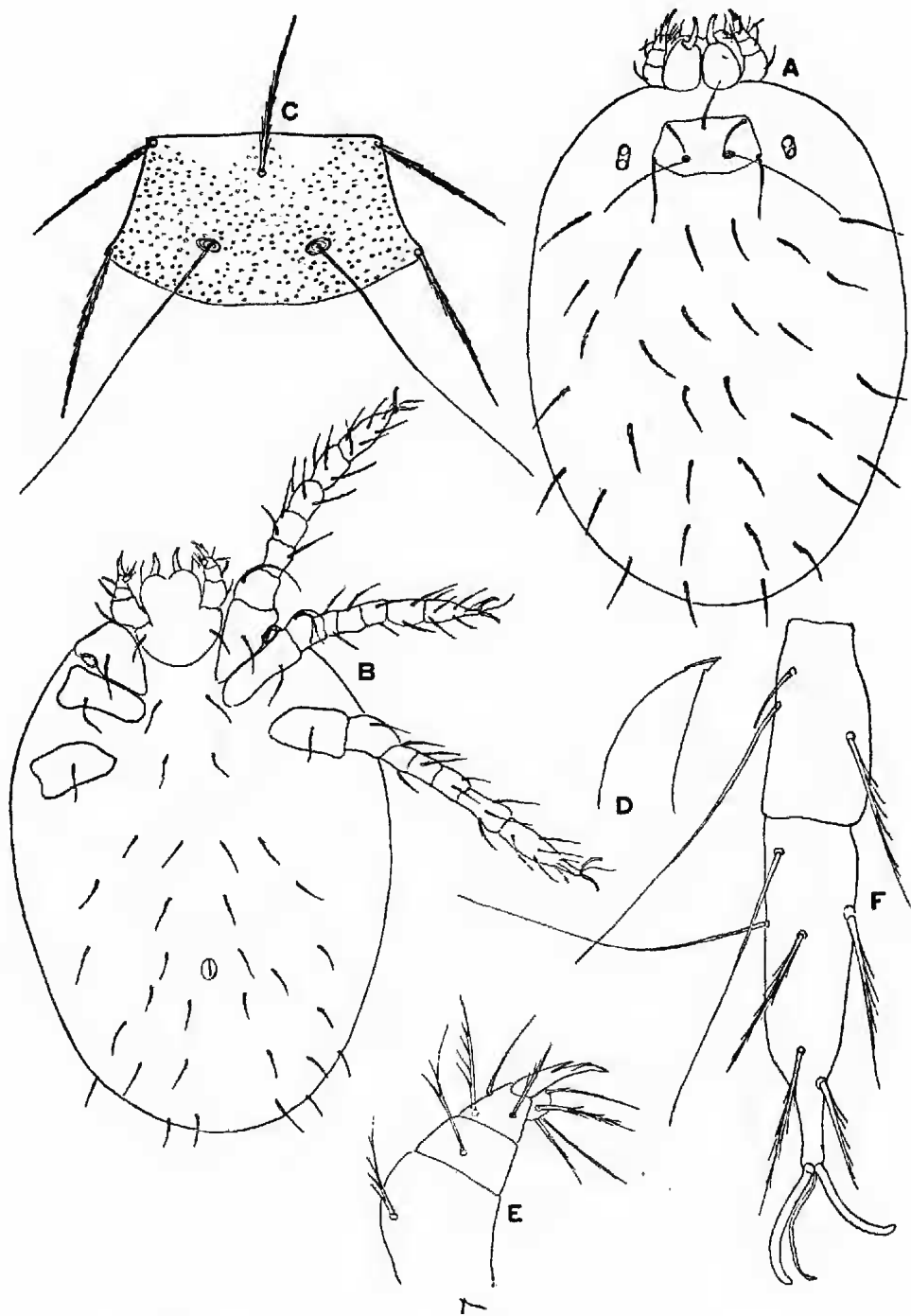


Fig. 2 *Trombicula antechinus* sp. n.
 A, dorsal view; B, ventral view; C, scutum (x 500); D, tip of chelicera;
 E, palp; F, tibia and tarsus of leg III.

The Standard Data derived from 16 of 23 specimens collected on *Antechinus flavipes* are:—

	Mean	Standard Deviation	Theoretical Range	Observed Range	Coeff. of Variation
AW	63.8 ± 0.44	1.78 ± 0.32	58.5 — 69.1	61.6 — 67.2	2.8
PW	86.45 ± 0.64	2.55 ± 0.45	78.8 — 94.1	84.0 — 92.4	2.9
SB	29.7 ± 0.35	1.42 ± 0.25	25.5 — 33.9	28.0 — 32.2	4.8
ASB	32.2 ± 0.43	1.71 ± 0.25	27.1 — 37.3	28.0 — 33.6	5.6
PSB	17.5 ± 0.30	1.21 ± 0.21	13.9 — 21.1	16.8 — 19.6	7.0
SD	49.1 ± 0.34	1.35 ± 0.24	45.1 — 53.1	47.6 — 50.4	2.7
A-P	31.1 ± 0.22	0.89 ± 0.16	28.4 — 33.8	29.4 — 33.6	2.8
AM	45.7 ± 0.60	2.09 ± 0.3	39.4 — 52.0	42.0 — 47.6	4.5
AL	43.35 ± 0.33	1.32 ± 0.23	38.4 — 46.3	39.2 — 44.8	3.1
PL	49.5 ± 0.32	1.30 ± 0.23	45.6 — 53.4	47.6 — 50.4	2.6
Sens.	to 89.6				

Loc. and Host—Twenty-three specimens from a marsupial mouse, *Antechinus flavipes* from Mt. Glorious, Queensland, 6 August 1951 (coll. E. H. Derrick).

Remarks—In the mastitibiala and mastitarsalae on leg III, this species comes near to *novae-hollandiae*, as in the amended key.

Trombicula thylogale sp. n.

Fig. 3 A-G

Description of Larvae—Length of idiosoma (slightly engorged) 312 μ , width 231 μ . Scutum as figured, ASB nearly twice the length of PSB, posterior margin evenly rounded, and anterior margin lightly convex; SB slightly behind line of PL, scutal setae fairly long, tapering and ciliated; AM slightly shorter than AL, PL the longest; sensillae nude or with indistinct barbs basally; surface with sparse punctae. Eyes 2 + 2, on ocular shields, posterior the smaller. Palpi moderately stout, setae on femur 2-branched, genu 1-branched, on tibia, dorsal 2-branched, lateral 1-branched, and ventral 3-4 branched; tibial claw trifurcate. Chelicerae simple with only the apical tricuspid cap. Dorsal setae 30, arranged 2.6.6.6.4.4.2, to 45 μ long, except the humerals which are 48 μ long. Ventrally, a pair of branched setae on maxillae, one on each coxa, a pair between coxae I and between coxae III, and thereafter 6.2.4.6.6, to 34 μ long. Legs 7-segmented, I 273 μ long, II 234 μ long, III 273 μ long; specialised setae on leg I, 1 genuala, 1 microgenuala, 2 tibialae, 1 microtibiala, on tarsi 1 sensory rod, 1 microspur, 1 terminala; on leg II, 1 genuala, 2 tibialae, on tarsi 1 sensory rod, 1 microspur; and on leg III, 1 genuala, 1 tibiala, 1 microtibiala, 2 mastitarsalae.

The Standard Data derived from 16 of 29 specimens collected on *Thylogale wilcoxi* are:—

	Mean	Standard Deviation	Theoretical Range	Observed Range	Coeff. of Variation
AW	63.3 ± 0.43	1.73 ± 0.31	58.1 — 68.5	61.6 — 67.2	2.7
PW	80.4 ± 0.52	2.09 ± 0.37	74.1 — 86.7	75.6 — 84.0	2.6
SB	27.2 ± 0.30	1.21 ± 0.21	23.6 — 30.8	25.2 — 29.4	4.4
ASB	32.4 ± 0.35	1.39 ± 0.25	28.2 — 36.6	30.8 — 33.6	4.3
PSB	21.2 ± 0.35	1.39 ± 0.25	17.0 — 25.4	19.6 — 22.4	6.5
SD	53.55 ± 0.42	1.68 ± 0.30	48.5 — 58.6	50.4 — 56.0	3.1
A-P	24.8 ± 0.30	1.18 ± 0.21	21.3 — 28.3	22.4 — 26.6	4.8
AM	36.0 ± 0.38	1.44 ± 0.27	31.7 — 40.3	33.6 — 39.2	4.0
AL	38.4 ± 0.59	2.23 ± 0.42	31.7 — 45.1	33.6 — 42.0	5.8
PL	45.0 ± 0.52	2.09 ± 0.37	38.7 — 51.3	42.0 — 47.6	4.6
Sens.	to 89.6				

Loc. and Host—Twenty-nine specimens from a wallaby, *Thylogale wilcoxi* from Mt. Tamborine, 28 June 1951 (coll. E. H. Derrick).

Remarks—Belongs to the *novae-hollandiae* group and separated from the other allied species as in the emended key.

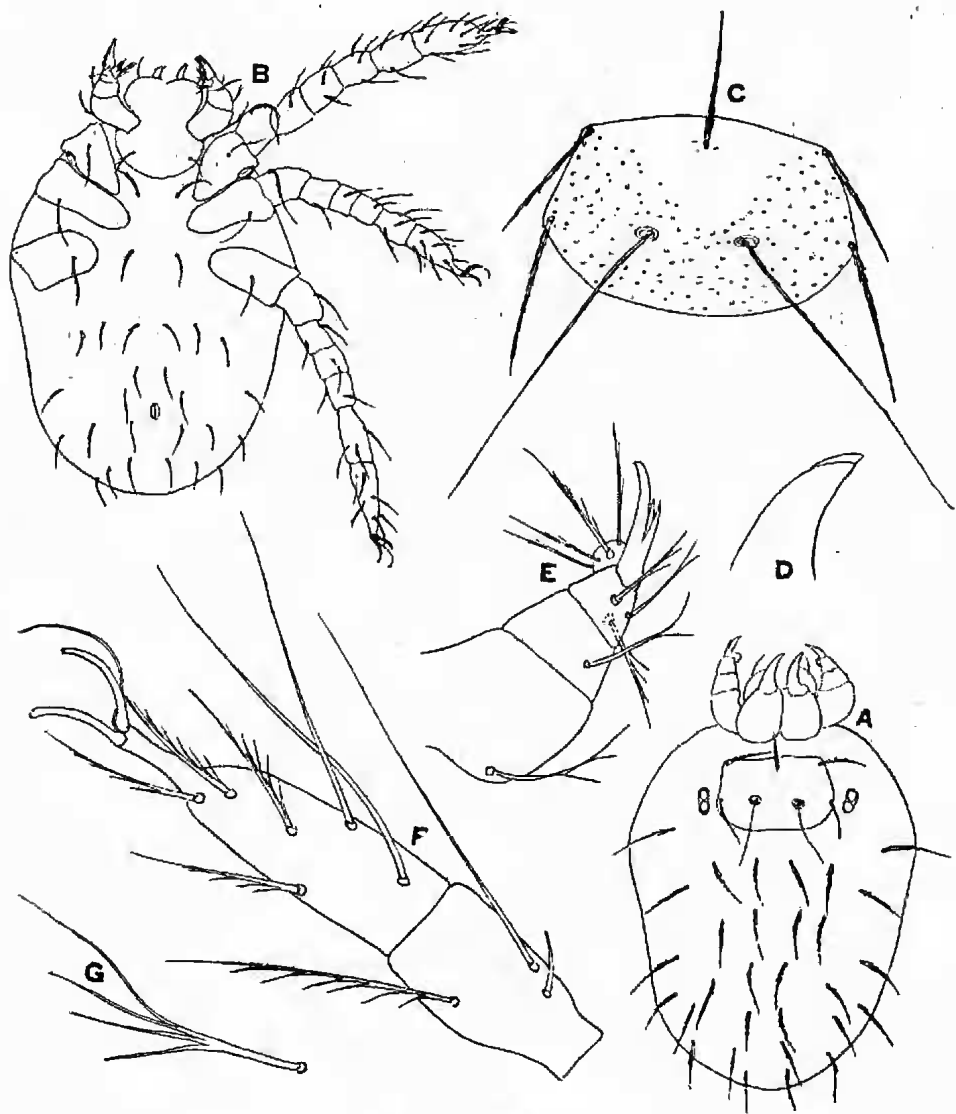


Fig. 3 *Trombicula thylogale* sp. n.

A, dorsal view; B, ventral view; C, scutum (x 500); D, tip of chelicera; E, palp, F, tibia and tarsus of leg III; G, maxillary seta.

Trombicula mackayensis sp. n.

Fig. 4 A-G

Description of Larvae—Length of idiosoma (unengorged) 208 μ , width 182 μ . Scutum as figured; pentagonal, posterior margin with straight sides and rounded apex; anterior margin only lightly sinuous and highest in front of AM; SB slightly in front of line of PL; scutal setae fairly long, tapering and ciliated, AM the shortest, PL the longest; sensillae filamentous with ciliations on distal

half; punctae fairly numerous. Eyes $2+2$, on ocular shields, posterior the smaller. Palpi moderately stout; setae on femur and genu branched or ciliated, on tibia all nude; tibial claw trifurcate. Chelicerae simple with only the apical tricuspid cap. Galeal setae nude. Dorsal setae 44, arranged 2.10.8.8.8.6.2, to 48μ

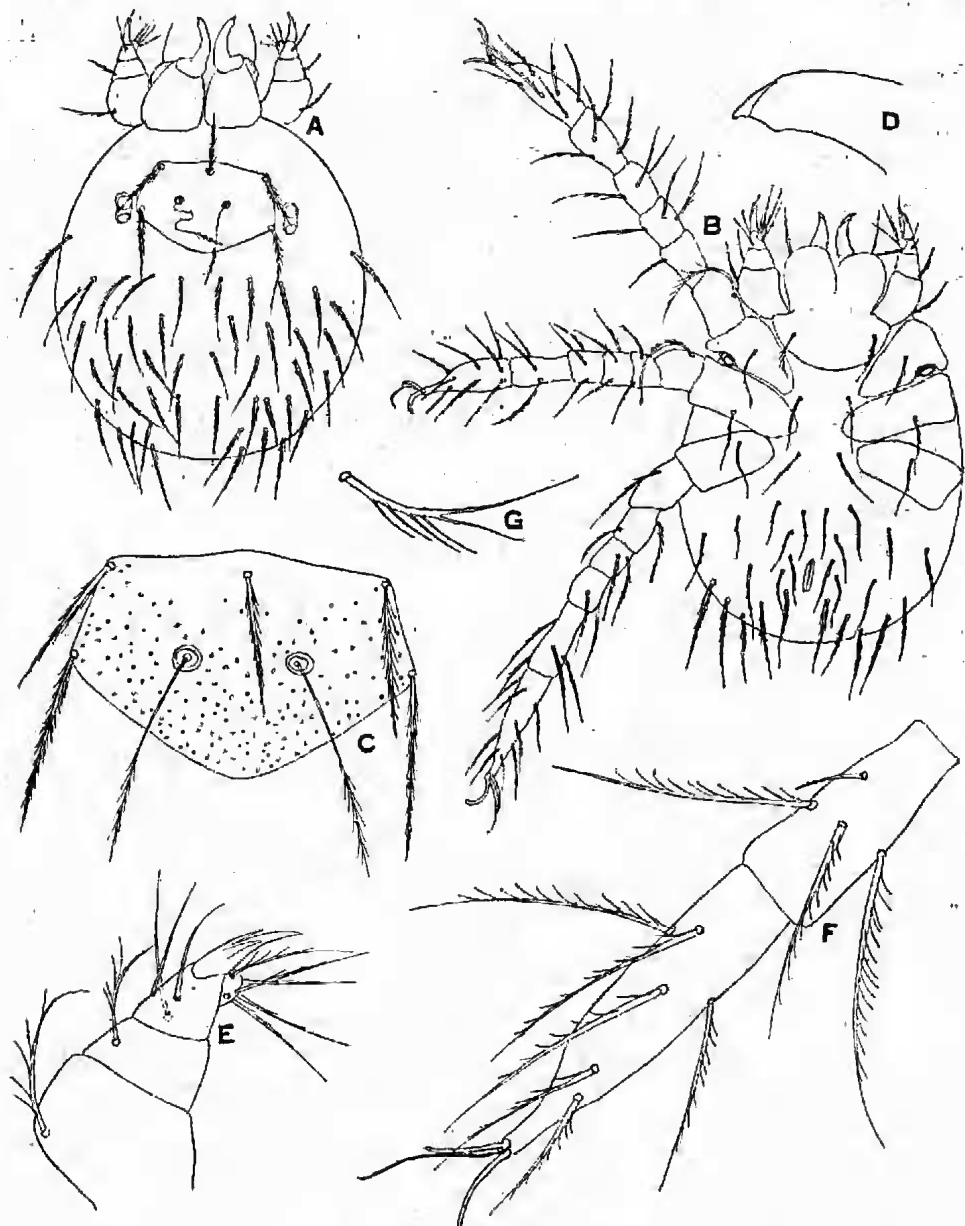


Fig. 4 *Trombicula mackayensis* sp. n.

A, dorsal view; B, ventral view; C, scutum ($\times 500$); D, tip of chelicera; E, palp; F, tibia and tarsus of leg III; G, maxillary seta.

long, except the humerals which are 50μ long. Ventrally, a pair of branched setae on maxillae, one on each coxa, a pair between coxae I and between coxae III and thereafter 8.2/6.4.6, to 34μ long. Legs, 7-segmented, I 247μ long, II 234μ long, III 260μ long; specialised setae on leg I, 1 genuala, 1 microgenuala; 2 tibiala,

1 microtibia, on tarsi 1 sensory rod, 1 microspur, and 1 terminala; on leg II, 1 genuala, 2 tibialae, on tarsi 1 sensory rod and 1 microspur; and on leg III, 1 genuala and 1 tibiala.

The Standard Data derived from 4 specimens, the type population, collected on card are:—

	Mean	Standard Deviation	Theoretical Range	Observed Range	Coeff. of Variation
AW	72.45 ± 0.35	70 ± 0.25	70.35 — 74.55	71.4 — 72.8	0.9
PW	89.9 ± 0.88	1.76 ± 0.62	84.6 — 95.2	88.2 — 92.4	2.0
SB	29.7 ± 0.35	0.70 ± 0.25	27.6 — 31.8	29.4 — 30.8	2.4
ASB	30.1 ± 0.70	1.4 ± 0.50	25.9 — 34.3	28.0 — 30.8	4.7
PSB	30.8		No variation		
SD	60.9 ± 0.70	1.4 ± 0.50	56.7 — 65.1	58.8 — 61.6	2.3
A-P	25.2		No variation recorded		
AM	37.1 ± 0.70	1.4 ± 0.50	32.9 — 41.3	36.4 — 39.2	3.8
AL	40.6 ± 0.81	1.62 ± 0.57	35.8 — 45.2	39.2 — 42.0	4.0
PL	49.0 ± 0.81	1.62 ± 0.57	44.2 — 53.8	47.6 — 50.4	3.3
Sens.	61.6		No variation recorded		

Loc. and Host—Four specimens from card at Mt. Jukes, Queensland, 6 September 1951, and a second population of approximately 50 specimens from Mt. Glorious, Queensland, 5 September 1952 (coll. E. H. Derrick).

Remarks—In the pentagonal scutum and differential characters, this species is very closely related to *kashmirensis* Wom. 1952 from India; and from which it differs in the smaller scutum and in the nature of the palpal setae.

The Standard Data derived from 16 of the specimens from Mt. Glorious only differ in the slightly but insignificantly lower values of AW and PW, SB, and a longer PL and are as follows:—

	Mean	Standard Deviation	Theoretical Range	Observed Range	Coeff. of Variation
AW	66.6 ± 0.46	1.85 ± 0.33	61.1 — 72.1	63.0 — 70.0	2.8
PW	84.3 ± 0.41	1.66 ± 0.30	79.3 — 89.3	81.2 — 86.8	1.96
SB	27.8 ± 0.19	0.68 ± 0.12	25.8 — 29.8	26.6 — 29.4	2.5
ASB	27.85 ± 0.24	0.95 ± 0.17	25.0 — 30.7	25.2 — 28.0	3.4
PSB	31.3 ± 0.37	1.47 ± 0.27	26.9 — 35.7	28.0 — 33.6	1.7
SD	59.0 ± 0.52	2.09 ± 0.37	52.7 — 65.3	53.2 — 61.6	3.5
A-P	25.6 ± 0.32	1.28 ± 0.23	21.8 — 29.2	22.4 — 28.0	5.0
AM	34.0 ± 0.23	0.93 ± 0.16	31.2 — 36.8	33.6 — 36.4	2.7
AL	38.0 ± 0.35	1.39 ± 0.24	33.8 — 42.2	36.4 — 39.2	3.6
PL	45.0 ± 0.30	1.20 ± 0.21	41.4 — 48.6	42.0 — 47.6	2.6
Sens.	62.3 ± 0.30	1.21 ± 0.21	58.7 — 65.9	61.6 — 64.4	1.9

Euschongastia parva sp. n.

Fig. 5 A-D

Description of Larvae—Shape oval. Length of idiosoma (unengorged) 234 μ , width 169 μ . Scutum as figured, almost twice as broad as deep; posterior margin not very deep behind PL and distinctly concave medially; SB behind line of PL; A-P almost twice the length of PSB; AM shortest, AL the longest; sensillae globose with setules. Eyes 2 + 2, on ocular shields, posterior the smaller. Palpi moderately stout, seta on femur and genu ciliated or branched; on tibia, dorsal and lateral nude, ventral branched; tibial claw trifurcate, Chelicerae simple with only the apical tricuspid cap. Galeal setae nude. Dorsal setae 34 arranged 2.6.6.6.8.4.2, to 35 μ long, except humerals which are 40 μ long. Ventrally; a pair of branched setae on maxillae, one on each coxa, and a pair between coxae I and between coxae III and thereafter 6.4.6/4.6.4.2, to 30 μ long. Legs 7-seg-

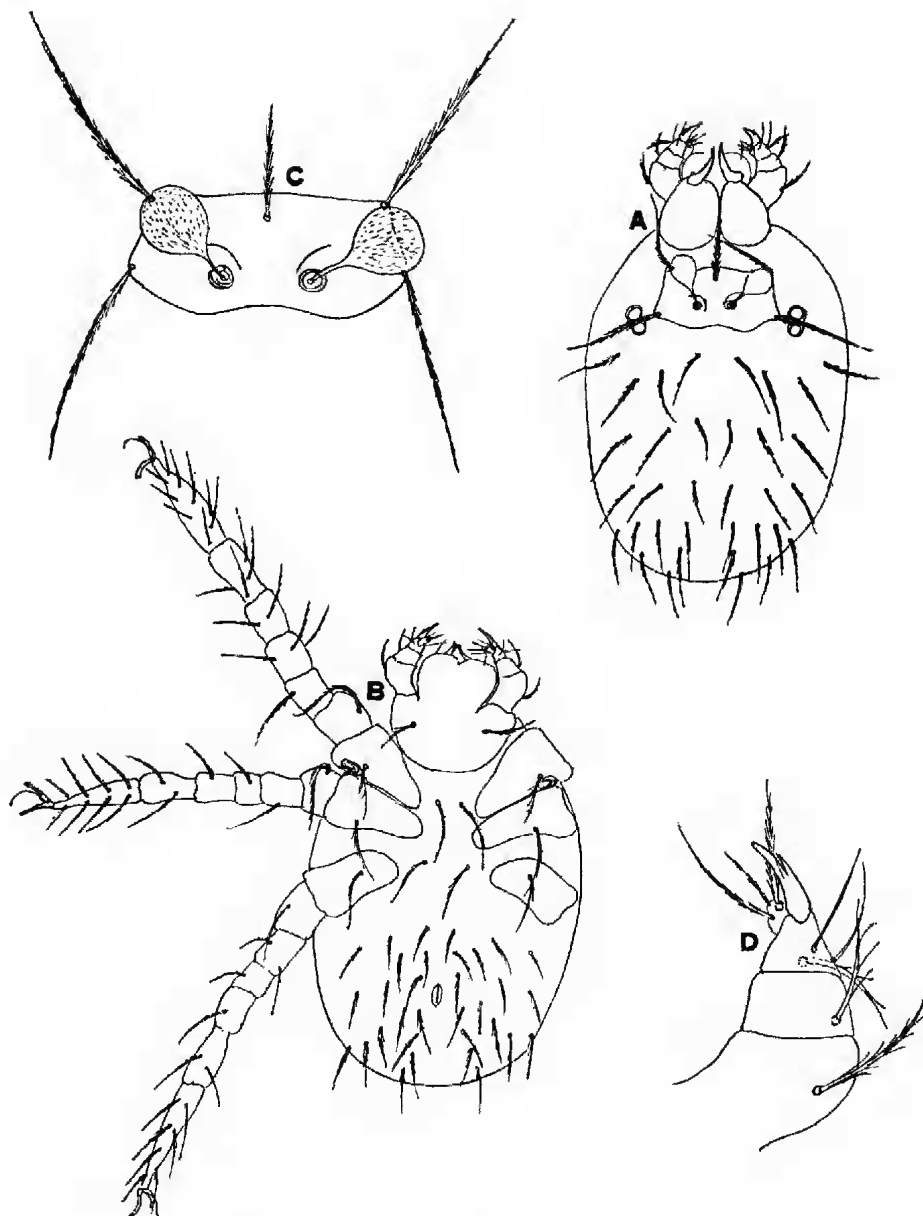


Fig. 5 *Euschongastia parva* sp. n.
A, dorsal view; B, ventral view; C, scutum (x 500); D, palp.

mented, I 260μ long, II 234μ long, III 260μ long; specialised setae on leg I, 2 genualae, 1 microgenuala, 2 tibialae, 1 microtibiala, and on tarsi 1 sensory rod, 1 microspur; on leg II, 2 tibialae, and on tarsi, 1 sensory rod, 1 microspur; and on leg III, 1 genuala and 1 tibiala.

The Standard Data derived from the type and 3 paratypes are:—

	Mean	Standard Deviation	Theoretical Range	Observed Range	Coeff. of Variation
AW	61.6 ± 1.14	2.29 ± 0.80	54.8 — 68.4	58.8 — 64.4	3.7
PW	78.4		No variation recorded		
S.B.	22.75 ± 0.67	1.34 ± 0.47	18.75 — 26.75	21.0 — 23.8	5.9
ASB	22.4		No variation recorded		
PSB	9.1 ± 0.70	1.40 ± 0.47	4.9 — 13.3	8.4 — 11.2	15.5
SD	31.5 ± 0.70	1.4 ± 0.47	27.3 — 35.7	30.8 — 33.6	4.4
A-P	22.4		No variation recorded		
AM	30.8		No variation recorded		
AL	60.2 ± 0.81	1.62 ± 0.57	55.4 — 65.0	58.8 — 61.6	2.7
PL	56.0		No variation recorded		
Sens.	30.8 with head 19.6 x 19.6.		No variation recorded		

Loc. and Host—Four specimens collected on card at Mt. Jukes, Queensland, 6 September 1951 (coll. E. H. Derrick).

Remarks—In Womersley's 1952 key to the species of *Euschongastia* (sic *Ascoshongastia*) this species runs down to couplet 40, but differs from both *echymipera* Wom. and Kohls, and *innisfailensis* Wom. and Heasp. in the shape of the scutum and the Standard Data.

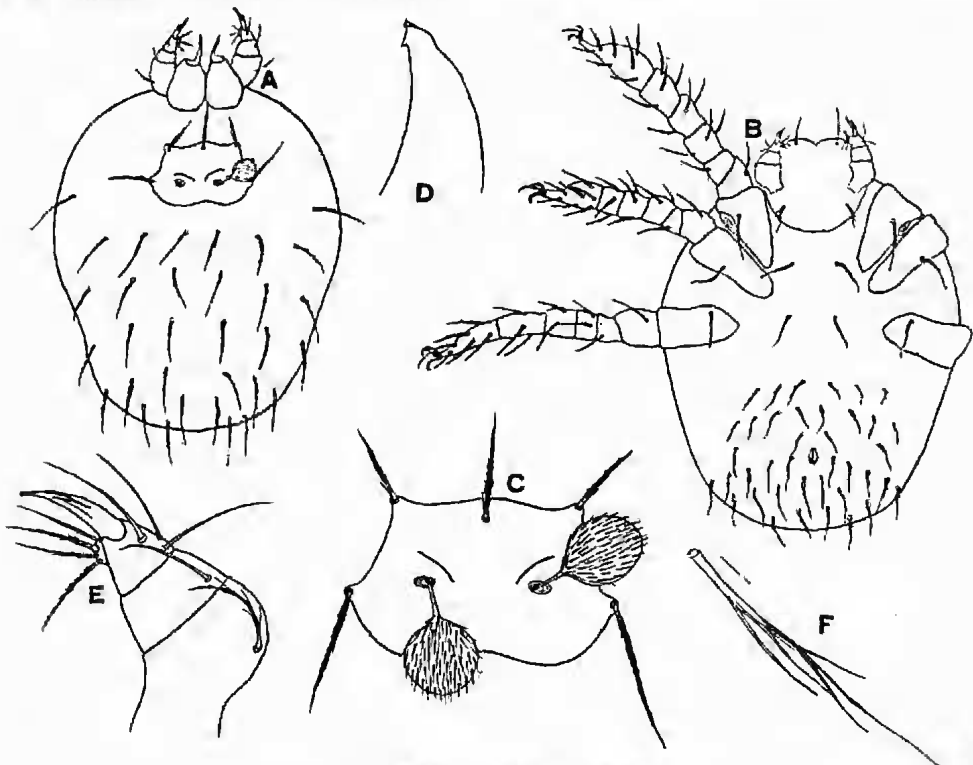


Fig. 6 *Euschongastia popei* sp. n.
A, dorsal view; B, ventral view; C, scutum (x 500); D, tip of chelicera;
E, palp; F, maxillary seta.

Euschongastia popei sp. n.

Fig. 6 A-F

Description of Larvae—Length of idiosoma (engorged) 390 μ , width 338 μ . Scutum as figured, posterior margin fairly deep behind line of PL and distinctly concave medially; in two of the specimens the margin of the scutum runs just

inside of the base of the PL setae, which thus lie out from the scutum proper. Anterior margin sinuous; SB in front of line of PL; scutal setae ciliated and tapering; AL the shortest, PL the longest; sensillae globose with setules. Eyes ?, not observable. Palpi moderately stout; setae all nude except the one on femur; tibial claw trifurcate. Chelicerae simple with only the apical tricuspid cap. Galeal setae nude. Dorsal setae 32 arranged 2.6.6.6.4.2, to 34μ long, except the humerals which are 39μ long. Ventrally; a pair of ciliated setae on maxillae, one on each coxa, a pair between coxae I and between coxae III and thereafter 6.8.4/10.8.4, to 25μ long. Legs, 7-segmented, I 195μ long, II 169μ long, III 208μ long; specialised setae on leg I, 2 genualae, 1 microgenuala, 2 tibialae, 1 microtibiala, and on tarsi 1 sensory rod, 1 microspur, 1 terminala; on leg II, 1 genuala, 2 tibialae, and on tarsi 1 sensory rod, 1 microspur; and on leg III, 1 genuala, 1 tibiala.

The Standard Data derived from the type and 4 paratypes are:—

	Mean	Standard Deviation	Theoretical Range	Observed Range	Coeff. of Variation
AW	48.7 ± 1.12	2.50 ± 0.80	41.2 — 56.2	47.6 — 53.2	5.1
PW	70.0 ± 1.25	2.80 ± 0.89	61.6 — 78.4	67.2 — 72.8	4.0
SB	28.0 ± 0.77	1.71 ± 0.54	22.9 — 33.1	26.6 — 30.8	6.1
ASB	23.5 ± 0.68	1.53 ± 0.49	18.9 — 28.1	22.4 — 25.2	6.5
PSB	20.7 ± 0.68	1.53 ± 0.49	16.1 — 25.2	19.6 — 22.4	7.4
SD	44.2 ± 1.37	3.07 ± 0.97	35.0 — 53.2	42.0 — 47.6	6.9
A-P	28.0		No variation recorded		
AM	27.4 ± 0.56	1.25 ± 0.40	23.65 — 31.15	28.0 — 25.2	4.6
AL	21.8 ± 0.56	1.25 ± 0.40	18.05 — 25.55	19.6 — 22.4	5.8
PL	40.3 ± 0.68	1.53 ± 0.49	35.7 — 44.9	39.2 — 42.0	3.8
Sens.	30.8 with head 16.8×19.6 .		Only 1 determination		

Loc. and Host—Five specimens collected on *Rattus assimilis* at Mt. Glorious, Queensland, 6 August 1951 (coll. E. H. Derrick).

Remarks—Like *procana* sp. n., the above new species will also run down to couplet 39 containing *coorongense* Hirst from which it differs in the differently shaped and very much smaller scutum, as well as having the seta on the palpal genu nude. From *procana* sp. n. it differs in the smaller number and different structure of the dorsal setae as well as having only the femoral seta of the palpi branched.

In two of the four specimens the scutal margin runs inside of the PL seta base, which can thus be said to be "off" the scutum. This incipient development again stresses the view that the off-scutal position of PL within the genus *Euschongastia* should not be used to create other genera as has been done by some workers.

Euschongastia procana sp. n.

Fig. 7 A-E

Description of Larvae—Shape oval. Length of idiosoma (unengorged) 273μ , width 195μ . Scutum as figured; posterior margin deep behind line of PL, and slightly concave medially; anterior margin sinuous; scutal setae long, tapering with slender denticles; AL the shortest, PL the longest; sensillae globose with setules. Eyes 2 + 2, on ocular shields, posterior the smaller. Palpi moderately stout; setae on femur and genu ciliated or branched; on tibia, dorsal and lateral nude, ventral branched; tibial claw trifurcate. Chelicerae simple with only the apical tricuspid cap. Galeal setae nude. Dorsal setae with slender denticles, 68 in number and arranged 2.10.14.18.12.6.4.2, to 53μ long, except humerals which are



Fig. 7 *Euschongastia procana* sp. n.

A, dorsal view; B, ventral view; C, scutum (x 500); D, palp; E, dorsal seta

62 μ long. Ventrally, a pair of ciliated setae on maxillae, one on each coxa, a pair between coxae I and between coxae III, and thereafter 12.8.6/8.6.4.2, to 28 μ long. Legs 7-segmented, I 299 μ , II 247 μ , III 286 μ long; specialised setae on leg I, 2 genualae, 1 microgenuala, 2 tibialae, 1 microtibiala and on tarsi, 1 sensory rod, 1 microspur, 1 subterminala, 1 terminala; on leg II, 1 genuala, 2 tibialae, and on tarsi 1 sensory rod, 1 microspur; and on leg III, 1 genuala, 1 tibiala.



Fig. 8 *Euschongastia andromeda* sp. n.

A, dorsal view; B, ventral view; C, scutum ($\times 500$) of type of specimen;
 D, scutum ($\times 500$) of paratype specimen; E, tip of chelicera; F, palp;
 G, tibia and tarsus of leg III.

The Standard Data for the type and 1 paratype collected on card are:—

	Mean	Standard Deviation	Theoretical Range	Observed Range	Coeff. of Variation
AW	- 56.0		No variation recorded		
PW	- 81.2		No variation recorded		
SB	- 28.0 ± 0.99	1.4 ± 0.7	23.8 — 32.2	26.6 — 29.4	5.0
ASB	- 26.6 ± 0.99	1.4 ± 0.7	22.4 — 30.8	25.2 — 28.0	5.3
PSB	- 22.4		No variation recorded		
SD	- 49.0 ± 0.99	1.4 ± 0.7	44.8 — 53.2	47.6 — 50.4	2.9
A-P	- 28.0		No variation recorded		
AM	- 47.6		No variation recorded		
AL	- 39.2		No variation recorded		
PL	- 61.6		No variation recorded		
Sens.	- 37.8 ± 0.99	1.4 ± 0.7	33.6 — 42.0	36.4 — 39.2	3.7

with head 22.4 x 19.6

Loc. and Host—Two specimens collected on card at Mt. Jukes, Queensland, 6 September 1951 (coll. E. H. Derrick).

Remarks—In Womersley's key (1952, p. 236) this species runs down to couplet 39, along with *coorongense* I first, from which it differs markedly in the more denticulate scutal and dorsal setae, the much greater number of dorsal setae, and in having the ventral seta of the palpal tibia branched, as well as in the smaller scutum.

Euschongastia andromeda sp.n.

Fig. 8 A-G

Description of Larvae—Shape oval. Length of idiosoma (unengorged) 274 μ , width 182 μ . Scutum as figured; nearly twice as wide as deep; posterior margin very shallow behind line of PL, and slightly concave medially; anterior margin sinuous; SB in front of PL; scutal setae long, tapering and ciliated; AL the shortest, PL the longest; sensillae globose with setules. Eyes 2 + 2, on ocular shields; posterior the smaller. Palpi moderately stout; setae on femur and genu branched or ciliated; on tarsi dorsal and lateral nude, ventral branched; tibial claw trifurcate. Chelicerae simple with apical tricuspid cap. Galeal setae nude. Dorsal setae 44 arranged 2.8.8.8.10.4.2.2, to 36 μ long, except humerals which are 42 μ long. Ventrally, a pair of ciliated setae on maxillae, one on each of coxae I and II, two on coxae III, a pair between coxae I and between coxae III, and thereafter 6.6.4/2.6.6.2.2, to 31 μ long. Legs 7-segmented; specialised setae on leg I, 2 genualae, 1 microgenuala, 2 tibialae, 1 microtibiala, and on tarsi, 1 sensory rod, 1 microspur, 1 terminala; on leg II, 1 genuala, 2 tibialae, and on tarsi 1 sensory rod, 1 microspur; and on leg III, 1 genuala, 1 tibiala, also on tibia 2 very long but basally ciliated setae and two similar ones on tarsi.

The Standard Data derived from the type and 1 paratype are:— AW 74.2, 67.2; PW 86.8, 81.2; SB 29.4, 28.0; ASB 28.0, 28.0; PSB 11.2, 14.0; SD 39.2, 42.0; A-P 36.4, 36.4; AM 42.0, 42.0; AL 33.6, 33.6, PL 56.0, 56.0; Sens. 39.2, 39.2 with head 22.4 x 19.6.

Loc. and Host—Two specimens collected on card at Mt. Tamborine, Queensland, 14 May 1952 (coll. E. H. Derrick).

Remarks—In having 2 setae on coxae III this species is closely related to *petrogale* Wom., in couplet 29 of Womersley's key 1952 on p. 234. It differs, however, in the fewer and different dorsal setae as well as the Standard Data, and the shape of the scutum. The setae on the palpal femur, genu and tibia ventral are only sparsely branched. However, more characteristic are the long but basally ciliated setae on tibia and tarsi of leg III. The Standard Data of the paratype are somewhat higher in AW and PW than in the type, probably due to undue compression.